

On the Fuzzy d-dimensional linear Spaces.

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Let N be a finite set with at least three points, L be a finite F-lattice (i.e. completely distributive lattice with an order-reversing involution $' : L \rightarrow L$) and L^N be a set of the all Fuzzy subsets of N . For a subfamily (so called *fuzzy lines*) $D \subset L^N$ the pair (N, D) is called *Fuzzy near-linear spaces* (FNLS) if it satisfies the following three conditions:

- (NFLS-1) for all $x, y \in N$ there exists $d \in D$ such that $d(x) \wedge d(y) \neq \theta$;
- (NFLS-2) for any $d \in D$ there exist $x, y \in N$ such that $d(x) \wedge d(y) \neq \theta$;
- (NFLS-3) there exist $x, y, z \in N$ for all $d \in D$ holds $d(x) \wedge d(y) \wedge d(z) = \theta$.

In this work the difference between FNLS and traditional near-linear spaces (TNLS) is considered. It is known that, two distinct lines of TNLS intersect in at most one point and for two d_1, d_2 lines $d_1 \leq d_2$ implies $d_1 = d_2$. It is proved that these propositions for FNLS, general speaking, is not true. Moreover, the definitions of closure and independent sets, and basis of FNLS is given.